

03-0826

IN THE CLAIMS

1. (original) A system for thinning a layer on a substrate without damaging a delicate underlying layer in the substrate, the system comprising:
means for mechanically eroding the layer on the substrate, wherein the means for mechanically eroding the layer comprise at least one of a rotating brush and a spray nozzle adapted to direct a spray of a solution against the layer,
and
means for electropolishing the layer on the substrate.
2. (original) The system of claim 1, wherein the means for mechanically eroding the layer and the means for electropolishing the layer are configured to operate simultaneously.
3. (canceled)
4. (canceled)
5. (canceled)
6. (canceled)
7. (original) The system of claim 1, wherein the means for electropolishing the layer comprise means for establishing a voltage potential through an electrically conductive liquid between the layer on the substrate and the means for mechanically eroding the layer.
8. (canceled)
9. (canceled)
10. (canceled)
11. (currently amended) A method for thinning an overlying layer on a substrate without damaging a delicate underlying layer in the substrate, the method comprising the steps of:
mechanically eroding a first portion of the overlying layer, and
electropolishing a second portion of the overlying layer.
12. (original) The method of claim 11, wherein the first portion of the layer comprises an overlying oxidized portion of the layer.

03-0826

13. (original) The method of claim 11, wherein the first portion of the layer comprises an underlying portion of the layer that is formed of a material that cannot be removed by electropolishing.
14. (original) The method of claim 11, wherein the first portion of the layer comprises an overlying oxidized portion of the layer and an underlying portion of the layer that is formed of a material that cannot be removed by electropolishing.
15. (original) The method of claim 11, wherein the second portion of the layer comprises a metal.
16. (original) The method of claim 11, wherein the first portion of the layer is electropolished simultaneously with the mechanical erosion.
17. (original) The method of claim 11, wherein the second portion of the layer is mechanically eroded simultaneously with the electropolishing.
18. (original) The method of claim 11, wherein the layer comprises a first electrically conductive layer, an underlying non electrically conductive barrier layer, and an intervening electrically conductive seed layer.
19. (original) The method of claim 11, wherein the layer comprises copper.
20. (original) The method of claim 11, wherein the first portion of the layer is thinned to a relatively greater extent by mechanical erosion and is thinned to a relatively lesser extent by electropolishing, and the second portion of the layer is thinned to a relatively greater extent by electropolishing and is thinned to a relatively lesser extent by mechanical erosion.

5